REMARKS

Claims 1 and 5 have been amended to recite that the washcoat has a thickness of about 0.043 millimeters to about 0.153 millimeters on the perimeter walls and of about 0.014 millimeters to about 0.051 millimeters on the interior walls, features recited in claims 3 and 7, now cancelled.

Since the amendments to the independent claims only add features already present in the dependent claims, the amendments add no new matter. In the event that the claims are still not considered allowable, Applicants request that the amendments be entered nevertheless, if only for purposes of consolidating the claims for appeal.

Claims Rejection based on Ogawa et al. and Machida et al.

Claims 1-2, 4-6, and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 4,455,336, issued to Ogawa et al. in 1984. Claims 3-4 and 7-8 were rejected under 35 U.S.C. § 103 as unpatentable over Ogawa et al. in view of United States Patent No. 5,494,881, issued to Machida et al. in 1996. Claims 1 and 5 are amended to include the features of claims 3 and 7, respectively.

Ogawa et al. does not describe applying any coating to walls of interior cells. It does not describe applying a washcoat. Therefore, it cannot teach or suggest Applicants' invention.

A typical catalytic converter comprises a ceramic substrate over which is distributed a metal catalyst. It is desired to use a high surface area to maximize contact with exhaust gas. Ogawa et al. relates to a substrate having a high porosity in order to increase surface area. One problem is that, as porosity is increased, the mechanical strength of the structure is lowered, see

col. 1, lines 17-20. Ogawa et al. solves this problem by filling the pores in walls of the exterior channels at the periphery of the structure, col. 2, lines 6-12. This produces walls shown in Fig. 1B. Walls of the interior channels are not treated, and so are as shown in Fig. 1A. Figs. 2A and 2B show that only the walls 5 of the perimeter cells, i.e., the cells adjacent the perimeter of the body, are coated. The walls 6 of interior cells are not coated, see col. 2, lines 47-51. Nor would Ogawa et al. suggest treating the walls of the interior cells, since to do so would reduce the porosity and thus be contrary to the object of high porosity walls.

Furthermore, Ogawa et al. does not apply a washcoat. Washcoats are well known in the catalytic converter art and are applied to the walls of the ceramic substrate and impregnated with catalyst. One purpose of the washcoat is to increase the surface area in contact with the exhaust gas. Ogawa et al. takes the approach of using a high porosity substrate to increase surface area. Even if the coating material in coating material in Ogawa et al. is considered akin to a conventional washcoat, which Applicants' contend it is not, then Ogawa et al still fails to suggest applying such to the interior cells, since Ogawa et al. teaches that its coating material reduces the porosity and surface area.

Machida et al. is cited as showing a substrate having a partition walls within the range preferred for Applicants' invention. Machida et al. also contemplates coating the walls with a washcoat, col. 6, lines 59-62. However, Machida et al. applies the coating uniformly to the walls of the interior and perimeter cells. Nothing in Machida et al. suggests varying the thickness of the coating applied to the interior cells and perimeter cells. Thus, Machida et al. does not show Applicants' invention.

Therefore, the references, taken separately or combined, do not point to Applicants'

invention. Ogawa et al. does not apply a coating to the walls of interior cells. Machida et al. applies a coating, but it is uniform on both interior and perimeter walls. Moreover, as shown in Fig. 2A in Ogawa et al., the material, although referred to as a coating, fills the pores, but does not form a layer on the surface. It does not show a coating having meaningful thickness, as recited in Applicants' claims. Since Ogawa et al. does not want a coating on the interior cell walls, there is nothing to point the practitioner to apply one. Thus, the teaching of Machida et al. does not lead the practitioner to apply a coating where Ogawa et al. shows no coating should be applied.

The Examiner's response overlooks significant points of Applicants' arguments. In response to Applicants' view that Ogawa et al. does not apply a washcoat, the remarks point to "the inner walls of the channels which is located in the peripheral region." This corresponds to the perimeter cells in Applicants' claims. However, the rejection does not point to, and indeed cannot point to, any coating in Ogawa et al. that is applied to the walls of the interior cells. The Examiner's response also states, "Ogawa et al. does not discloses any removal of the washcoat in the inner wall of the channels that are located in the peripheral region." Fig. 1B shows superfluous coating is removed from both sides of the walls. Thus, whereas Ogawa et al. has no coating on interior cells, and no appreciable coating layer on the perimeter cells, Appliances' apply a significant coating to interior cells, and an even thicker coating to perimeter cells. Ogawa et al. does not teach these features, and the conventional, uniform washcoat in Machida et al. does not make up the deficiency.

Claim 1 is directed to Applicants' catalytic converter that includes a substrate with perimeter cells and interior cells. It also includes a catalyst washcoat applied to substrate. The thickness of the coating on the walls of the perimeter cells, referred to as perimeter walls, is

greater than the thickness of the coating on the walls of the interior cells, referred to as interior walls. As amended herein, or as originally set forth in claim 3, the washcoat on the interior walls has a thickness between 0.014 and 0.051 millimeters. Thus, it is clear that the claim calls for a significant washcoat coating applied to the interior cells. Ogawa et al. preserves the porosity of the interior cells and does not apply any coating thereto. The practitioner would have to ignore the clear teachings in order to use the use the washcoat in Machida et al. on the interior cells. Therefore, neither Ogawa et al. nor Machida et al nor there combination leads the practitioner to Applicants' invention as set forth in claim 1 as amended herein, or original claim 3.

Claim 5 is directed to Applicants' method. As amended herein, or with the limitations in original claim 7, it is clear that the claimed method includes applying a significant coating to the interior cells, and a thicker coating to the perimeter cells. Ogawa et al. does not apply a coating to the interior cells. Machida et al. contemplates a uniform coating. There is nothing in the references to lead the practitioner to ignore the teachings in Ogawa et al. and plug the porosity using a washcoat such as Machida et al., and then apply an even thicker coating to the perimeter cells. Thus, the references do not teach Applicants' claimed method.

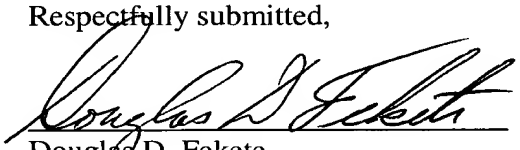
With the amendments to claims 1 and 5 to include the features of claims 3 and 7, it is believed that the remaining claims dependent upon claims 1 and 5 are also now allowable. Therefore, it is respectfully requested that the rejection of the claims as unpatentable over Ogawa et al. and Machida et al. be reconsidered and withdrawn, and that the claims be allowed.

Conclusion

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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